



PRODUCT-DETAILS

NS31ES-20

NS31ES-20 24V50/60HZ Contactor Relay



General Information	
Extended Product Type	NS31ES-20
Product ID	1SBH101004R2031
EAN	3471523009202
Catalog Description	NS31ES-20 24V50/60HZ Contactor Relay
Long Description	NS... contactor relays are used for switching auxiliary circuits and control circuits. The NS..S contactor relays are the spring terminal version of the NS... range. - Poles and auxiliary contacts blocks: 4-pole contactor relays, front-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor relay side) - Control circuit: AC operated with laminated magnet circuit - Accessories: a wide range of accessories is available.

Ordering	
Minimum Order Quantity	40 piece
Customs Tariff Number	85364900

Popular Downloads

Instructions and Manuals	1SBC101020M9701
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	72.5 mm
Product Net Height	68 mm
Product Net Weight	0.22 kg

Technical

Number of Auxiliary Contacts NO	3
Number of Auxiliary Contacts NC	1
Standards	IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I _{th})	acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 10 A
Rated Operational Current AC-15 (I _e)	(500 V) NC 2 (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Short-time Withstand Current Low Voltage (I _{cw})	for 0.1 s 140 A for 1 s 100 A
Maximum Electrical Switching Frequency	(AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour
Rated Operational Current DC-13 (I _e)	(24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W
Rated Insulation Voltage (U _i)	acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U _{imp})	Auxiliary Circuit 6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U _c)	50 Hz 24 V 60 Hz 24 V
Operate Time	Between Coil De-energization and NC Contact Closing 7 ... 22 ms Between Coil De-energization and NO Contact Opening 5 ... 19 ms Between Coil Energization and NC Contact Opening 6 ... 18 ms Between Coil Energization and NO Contact Closing 9 ... 24 ms
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm ² Rigid 1/2x 0.75 ... 2.5 mm ²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm ²

	Rigid 1/2x 0.75 ... 2.5 mm ²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20
Terminal Type	Spring Terminals

Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: C1 19 g Closed, Shock Direction: C2 16 g Open, Shock Direction: C1 8 g Open, Shock Direction: C2 13 g Shock Direction: A 20 g Shock Direction: B1 5 g Shock Direction: B2 15 g
Resistance to Vibrations	3g Closed Position & 2g Open Position 5 ... 300 Hz

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

Certificates and Declarations

CB Certificate	CB_CN_32453
CCC Certificate	CCC_2007010305248106
CQC Certificate	CQC2007010305248106
Declaration of Conformity - CCC	2020980304001219
Declaration of Conformity - CE	1SBD250016U1000
Declaration of Conformity - UKCA	1SBD250051U1000
GOST Certificate	GOST_POCCCNME77B07821.pdf
UL Certificate	UL_220108-E312527A

Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	78 mm
Package Level 1 Depth / Length	80 mm

Package Level 1 Height	48 mm
Package Level 1 Gross Weight	0.22 kg
Package Level 1 EAN	3471523009202
Package Level 2 Units	40 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	315 mm
Package Level 2 Height	195 mm
Package Level 2 Gross Weight	8.8 kg
Package Level 3 Units	960 piece

Classifications

Object Classification Code	K
ETIM 4	EC000196 - Contactor relay
ETIM 5	EC000196 - Contactor relay
ETIM 6	EC000196 - Contactor relay
ETIM 7	EC000196 - Contactor relay
ETIM 8	EC000196 - Contactor relay
eClass	V11.0 : 27371001
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4761 >> Magnet contactor, AC-switching

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → NS Contactor Relays → NS

